

Serial No.: 09/646,811

Atty. Docket: BATG-5

Title: An Automated Cigarette Maker and Component Assemblies

IN THE CLAIMS

1 - 9 (canceled)

10. (currently amended): A do-it-yourself An automated cigarette maker including a tobacco rod shaping mechanism, comprising:

a funnel-shaped tobacco material infeed section, wherein a side-wall section of said infeed section is pivot-mounted;

a singling device for said tobacco material; and,

a tobacco rod compression mechanism;

said singling device being a roller, partly surrounded by a housing, with a plucking mechanism arranged at a circumference of said roller, said tobacco material being conveyed into said tobacco rod compression mechanism, wherein a wall section is pivot mounted.

11. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 10, wherein said funnel-shaped infeed surface comprises at least one wall section oriented radially to an axis of said roller.

12. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 10, wherein said tobacco rod compression mechanism comprises a tobacco chamber which can be opened and closed by at least one traveling side, said traveling side of said chamber being shifted by means of a cam from an opened position into a closed position, in overcoming a spring preload, and an opening width of the chamber is preferably settable by means of a positioner.

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13. (currently amended): The do it yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 10, wherein said wall sections, surrounding said tobacco rod to be shaped a sidewall of said tobacco rod compression mechanism, are is provided with an anti-stick coating.
14. (currently amended): The do it yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 10, wherein said roller is insertably removable.
15. (currently amended): The do it yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 10, wherein said plucking roller mechanism is made of a material resistant to corrosion.
- 16 - 25 (canceled)
26. (currently amended): The do it yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 15, said material resistant to corrosion being an AlO₂ surface finish.
27. (currently amended): The do it yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 10, said plucking mechanism being a plucking roller with plucking pins.
28. (currently amended): The do it yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 10, further comprising a tube conveyor including a tube hopper for receiving a supply of empty cigarette tubes, a discharge device for a tube for filling with a tobacco material, a holder mechanism within said tube conveyor, and a cigarette hopper for receiving filled cigarettes, said discharge device being a lifting device for raising a

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tube from below out of said tube hopper, wherein, said lifting device comprises a pusher, a top edge of said pusher having a longitudinal recess.

29. (currently amended): The ~~do-it-yourself automated~~ cigarette maker as set forth in claim 28, wherein said pusher in said tube hopper is arranged so that said longitudinal recess, in a lowered condition, forms part of the bottom at a substantially lowest point of said tube hopper.

30. (currently amended): The ~~do-it-yourself automated~~ cigarette maker as set forth in claim 28, wherein said pusher is arranged at a straight wall of said tube hopper, along which said pusher is raised, at least one deflector being arranged at an upper part of said wall for returning all raised tubes back into said tube hopper except for a tube located in said recess of said pusher.

31. (currently amended): The ~~do-it-yourself automated~~ cigarette maker as set forth in claim 30, wherein said deflectors comprise at least one pivot clip oriented transversely to said longitudinal recess of said pusher and initially coming to rest on said raised tube upon raising of said pusher, and, upon a further raising said at least one pivot clip slides past said tube into slots in said pusher so that said at least one clip is located underneath said tube and transport said filled cigarette into said cigarette hopper upon lowering of said pusher.

32. (currently amended): The ~~do-it-yourself automated~~ cigarette maker as set forth in claim 31, wherein said at least one clip is arranged on a common pivoting axis and is pre-tensioned by a lever weight in a direction of rotation.

33. (currently amended): The ~~do-it-yourself automated~~ cigarette maker as set forth in claim 10, further comprising a holder mechanism comprising a recessed forming member at least partially surrounding a cigarette tube from above.

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34. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 33, wherein a longitudinal recess of a pusher, in a raised condition, together with said recessed forming member of said holder mechanism, substantially surrounds said tube during a filling procedure.
35. (currently amended): The do-it-yourself automated cigarette maker as set forth in claim 33, wherein said holder mechanism further comprises sensors for detecting a condition of said holder mechanism.
36. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 35, said sensors being a photocell.
37. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 10, further comprising a tube hopper wherein said tube hopper is configured as a drawer, a bottom of said tube hopper being latticed.
38. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 37 wherein said drawer is a removable catchment vessel for the tobacco material.
39. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 10 further comprising a tappet, for shuttling in and out of a chamber containing a tobacco plug, wherein said tappet comprises an outer tube, in which a guide rod runs; said guide rod comprising at a front end an insertion aid for a tobacco rod.

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40. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 39, wherein said guide rod comprises at a rear appendage, a spring within said outer tube, said insertion aid for said tobacco material thereby entering said outer tube.
41. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 39 said insertion aid having a length substantially equal to said tobacco rod and being shaped to assist pushing of said tobacco rod in a conveying direction.
42. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 41 wherein said insertion aid is configured as a toothed blade.
43. (canceled)
44. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 41 wherein said insertion aid is configured as a spiral guide.
45. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 39 wherein said tappet is shifted back and forth at its rear end by means of an eccentric drive and a retaining lever holding said outer tube in position upon removal of said guide rod after conveyance of said tobacco rod.
46. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism as set forth in claim 39 having wherein a said tappet in a tobacco rod

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conveyor, said a tobacco compression chamber in said tobacco rod shaping mechanism, and a tube holding mechanism are all arranged in sequence and configured so that upon removal of said tappet, a through hole exists in said sequence.

47. (currently amended): The do-it-yourself automated cigarette maker including a tobacco rod shaping mechanism of claim 10 comprising:

a said housing having a plucking roller said singling device for said tobacco material rotatably positioned therein;

a funnel disposed above said plucking roller said funnel-shaped infeed defining an opening in said housing;

a tobacco chamber disposed beneath said plucking roller singling device;

a preloaded compressive pusher slidably positioned within said housing.

48. (currently amended): The do-it-yourself automated cigarette maker including tobacco rod shaping mechanism of claim 47, said compressive pusher being preloaded by a spring.

49. (currently amended): The do-it-yourself automated cigarette maker of claim 47, said tobacco rod shaping mechanism having an outer tube and a toothed blade axially aligned with said tobacco chamber.

50. (currently amended): The do-it-yourself automated cigarette maker of claim 47 further comprising a tube conveyor.

51. (currently amended): The do-it-yourself automated cigarette maker of claim 47, said tube conveyor axially aligning cigarette tubes with said tobacco chamber and a toothed blade.

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52. (currently amended): The do it yourself automated cigarette maker including a tobacco rod shaping mechanism of claim 10, comprising:

~~a housing having a roller positioned therein, said roller singling device having a plurality of plucking pins mounted on an outer circumference;~~

~~an upper portion of said housing defining a funnel hopper above said roller singling device;~~

~~a preloaded compressive pusher slidably mounted in said housing;~~

~~said a preloaded compressive pusher and housing forming a said tobacco chamber beneath said roller singling device; and,~~

~~a cam operatively engaging said preloaded compressive pusher between a first position and a second position.~~

53. (new): An automated cigarette maker including a tobacco rod shaping mechanism, comprising:

a tobacco material hopper wherein a side-wall of said tobacco material hopper is pivot-mounted;

said tobacco material hopper disposed above a singling device, said singling device being a roller partly surrounded by a housing with a plucking mechanism arranged at a circumference of said roller;

said singling device conveying tobacco material into a tobacco rod compression mechanism;

said plucking mechanism being a plurality of plucking pins mounted about said circumference of said roller;

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a preloaded compressive pusher and said housing forming a tobacco chamber beneath said singling device; and,

a cam operatively engaging said preloaded compressive pusher between a first position and a second position.